Recipients of development assistance for health

Both low- and middle-income countries are eligible for development assistance for health (DAH). In addition to income, burden of disease, which varies widely across income levels, plays into the investment choices of development assistance partners. To assess spending trends while controlling for these factors, this chapter harnesses World Bank income classifications and epidemiological data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2010 (GBD 2010).

Sourced from GBD 2010, disability-adjusted life years (DALYS) are the primary unit of disease burden utilized. DALYS incorporate years of life lost to premature mortality and years of life lived with disability to provide a single metric of burden. A substantial amount of premature mortality and disability translates into a high level of DALYS in a given country.

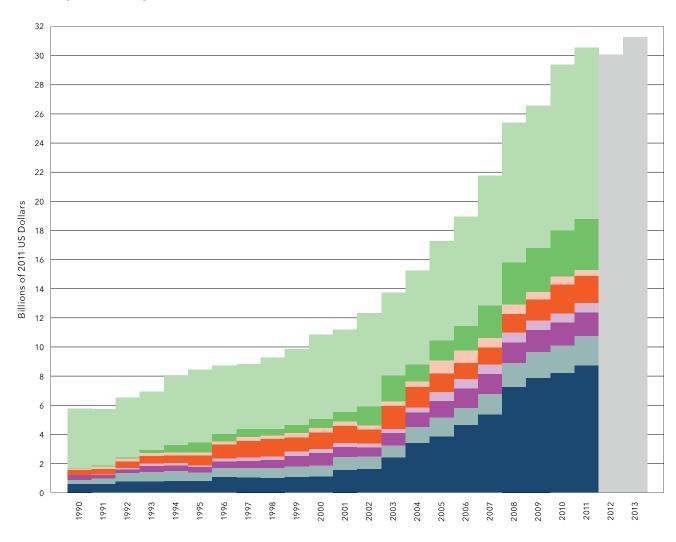
This chapter examines dah and dalys side by side, showing that the low-income countries with the most substantial infectious disease burdens generally receive more support, although some imbalance is present. The Institute for Health Metrics and Evaluation (IHME) also combines dah and dalys into a single measurement, dah per daly, to encapsulate the disbursements allocated per unit of disease burden. Sub-Saharan Africa stands out as benefiting from increasingly high levels of dah across different metrics. In contrast, middle-income countries, particularly upper-middle-income countries, increasingly receive less development assistance for health.

DAH BY REGION

Figure 7 displays DAH by developing country region from 1990 to 2011. Due to a lag in reporting, IHME is unable to allocate funds by region for 2012 and 2013. Furthermore, going back in time, a portion of funds, distinguished as "unallocable," cannot be allocated to a specific geographic region because some financial data do not contain region- or country-level information. Among the funds IHME can allocate, Figure 7 shows that regional allocations are shifting beneath the slightly growing total. Declines in the DAH provided to Latin America and the Caribbean, Europe and Central Asia, and North Africa and the Middle East were offset by growth across sub-Saharan Africa, South Asia, and East Asia and the Pacific in 2011.

Figure 7 also shows that DAH is chiefly focused on sub-Saharan Africa. In 2011, the region received 46.5% of total allocable aid. DAH to sub-Saharan Africa reached \$8.8 billion in this year, a 6.1% increase over 2010. Income and epidemiological trends are clearly important in driving DAH to the subcontinent. The share of DALYS attributed to the major infectious diseases, HIV/AIDS, malaria, and tuberculosis, at 24.7%, is highest across the regions considered. The DALYS associated with maternal and child conditions are also substantial, at 35.6% of total disease burden in the

FIGURE 7
DAH by focus region, 1990-2011



Unallocable

Global

North Africa & Middle East

Latin America & Caribbean

Europe & Central Asia

East Asia & Pacific

South Asia

Sub-Saharan Africa

Preliminary estimates

Source: IHME DAH Database 2013

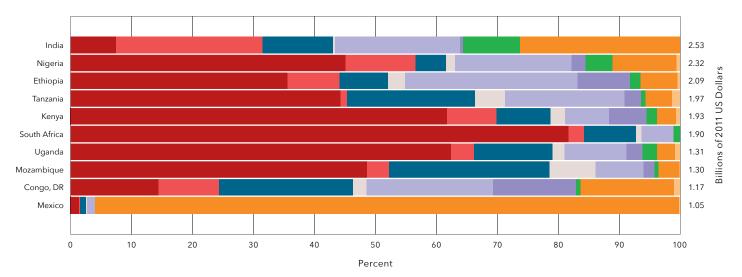
Notes: Health assistance for which no recipient country or region information is available is coded as "unallocable." Due to data limitations, estimates are unavailable for DAH by focus region for 2012 and 2013.

region. Furthermore, more low-income countries are located in sub-Saharan Africa than in any other region, evidence of dah's concentration in areas with low gross domestic product.

After sub-Saharan Africa, the "global" category received the second-highest share of DAH in 2011. The "global" grouping includes funds disbursed for global health activities that cannot be tied to a specific geographic area, such as research and development, international conferences, and other global health public goods. In 2011, \$3.5 billion in DAH was provided to these global activities, a 10.8% increase over 2010. Notably, this category grew the most across regional allocations over 2010–2011, an indication of the increasingly interconnected and global nature of development assistance for health.

South Asia received the next largest share of total DAH. In 2011, the region received 10.7% of DAH, with \$2 billion disbursed in the region. Spending in this

Top 10 country recipients of DAH by channel of assistance, 2009-2011



region grew 8.2% over 2010. South Asia harbors a large population; communicable diseases also make up a large share of its burden. However, it remains to be seen if DAH will continue to grow in future years, as the UK, India's biggest development assistance partner, announced it would discontinue its provision of development assistance to the country by 2015. 11

Compared to South Asia, the disease burden in the Latin America and Caribbean region is smaller. The region also has a smaller and increasingly wealthier population. However, the DAH allocated to Latin America and the Caribbean was only slightly less than South Asia's in 2011. The Latin America and Caribbean region received 9.7% of DAH, or \$1.8 billion, in 2011. This was a \$157 million decline relative to 2010.

Across other regions, trends varied. The DAH disbursed in Europe and Central Asia increased from \$618 to \$656 million from 2010 to 2011. The region's share of total DAH was 3.5% in 2011. The North Africa and Middle East region fell an estimated 20.7% to \$429 million in 2011. East Asia and Pacific, meanwhile, grew slightly. In 2010, DAH to the region grew to \$1.6 billion in 2011, a 2.1% increase. This amounted to 8.7% of total DAH.

Figure 8 displays the top 10 recipients of DAH, ranked by the cumulative DAH received over 2009–2011. This list consists mostly of sub-Saharan African countries, highlighting the role of income status and infectious disease burden in DAH disbursements. Two populous middle-income countries, India and Mexico, are the only countries on the list located in other regions. Mexico's appearance in the rankings can be explained by an International Bank for Reconstruction and Development (IBRD) project approved in 2010, which provided more than \$1 billion to the Mexican government with the objective of strengthening health insurance coverage and health system performance.³⁰

Infectious disease burden clearly plays a role in driving countries to the top of the DAH recipient list. Nine of the 10 countries on the list are among the top 20 nations in terms of HIV/AIDS burden. These nine recipients also receive some of the largest disbursements of DAH for HIV/AIDS. Most countries listed also rank high among nations with the greatest malaria DALYS and DAH.

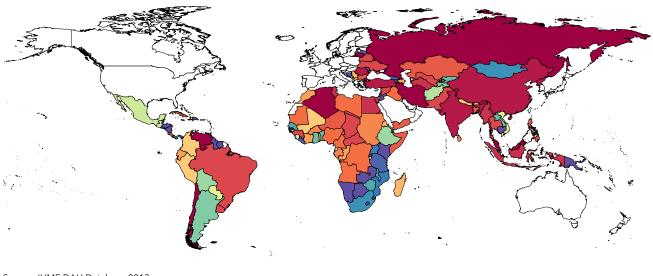


Source: IHME DAH Database 2013

Notes: The amount of DAH received by each country in billions of 2011 US dollars is shown on the right of the figure. The amount reflects only DAH allocable by country.

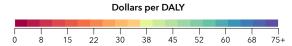
FIGURE 9

DAH per all-cause DALY, 2009–2011



Source: IHME DAH Database 2013

Notes: Countries that were ineligible for DAH based on their World Bank income classification are shown in white. DAH received is shown in real 2011 US dollars.



Us bilateral agencies contributed the bulk of DAH to the top 10 recipients of DAH. In six of these countries, Us bilateral assistance made up more than 40% of DAH received. After Us bilateral aid, GFATM contributed prominently to most of these countries in 2011. In India, historical ties play a role in the channels of DAH that are prominent; UK's bilateral assistance was responsible for the largest share of DAH in India from 2009 to 2011. In the Democratic Republic of the Congo (DRC), where civil conflict and other strife have occurred for some time, a myriad of international players are active in the provision of development assistance for health.

DISABILITY-ADJUSTED LIFE YEARS AND DAH

Levels of DAH at the regional and country levels reveal where funds are concentrated but do not capture burden of disease, one indicator of the level of need in a given country. To explore variations in the alignment between DAH and DALYS at the country level, the map displayed in Figure 9 depicts DAH per DALY. To produce DAH per DALY, cumulative DAH from 2009 to 2011 is divided by 2010 all-cause DALYS, a measure of the sum of all types of disease burden.

Figure 9 shows that DAH per DALY ranges from approximately zero to more than \$75 in some countries. India stands out as receiving some of the lowest levels of DAH per DALY despite topping the list of absolute DAH recipients. Due to its large population and substantial disease burden, India ranks low among recipients when measured by DAH per DALY. In contrast, some countries that receive among the highest absolute levels of DAH also receive substantial DAH per DALY, including Kenya, Tanzania, and Zambia, all of which, notably, suffer from a high burden of HIV/AIDS and malaria. Other recipients of the highest levels of DAH per DALY tend to be small low-income countries, including a number of small island developing states. Low

levels of dah per daly are observed in middle-income countries, such as India, China, Russia, and Chile, where infectious disease prevalence is lower and non-communicable diseases are on the rise.

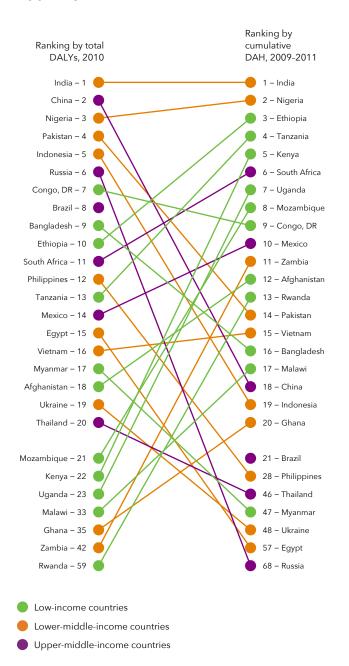
Figure 10 further explores the relationship between burden and DAH by portraying the ranking of countries by 2010 DALYS and the DAH disbursed from 2009 to 2011. Countries are also color-coded according to income status, exposing how level of economic development comes into play in these rankings. While six upper-middle-income countries are found among those countries with the highest disease burden, only three are top recipients of DAH. South Africa, with its substantial HIV/AIDS burden, and Mexico, as a recipient of sizeable loans from IBRD, figure among the top 20 DAH recipients. As the most populous country in the world, China also receives enough DAH to place it among the top 20 recipients. Two other very populous countries, India and Nigeria, rank highest among DALYS and DAH, exposing a certain amount of alignment at the highest ranks of DAH and DALYS. Imbalance is more evident among the remaining top 10 recipients of cumulative DAH, which are all low-income countries. Across the top 10 DAH recipients, only four countries had enough DALYS to put them among the top 10 in terms of disease burden.

Substantial variation in DAH per DALY is also evident across time. Figure 11 shows cumulative DAH for distinct five-year periods, divided by the total DALYS present in the last year of that period. Representing DAH trends in this way shows how drastically funding per DALY in sub-Saharan Africa has grown since 1990, even while controlling for burden. Over 1991–1995, the DAH per DALY received by sub-Saharan Africa was below that of both the North Africa and Middle East and Latin America and Caribbean regions. By 2006–2010, sub-Saharan Africa received almost \$20 more per DALY than the next-highest region, as measured by cumulative DAH over that period. This was almost a tripling in DAH per DALY as compared to the 2001–2005 period.

In most regions, dah per daly has climbed over time. However, Latin America and the Caribbean stands out as an exception, as Figure 11 shows stagnation between the 2001–2005 and 2006–2010 periods. The region nonetheless received the second-highest dah per daly in 2006–2010 after sub-Saharan Africa, at more than \$40 per daly. The level of dah per daly in North Africa and the Middle East is typically lower than dah per daly in Latin America and the

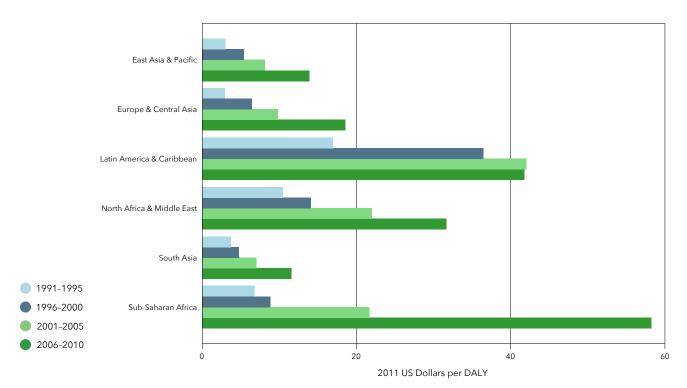
FIGURE 10

Top 20 countries by 2010 all-cause burden of disease versus cumulative 2009-2011 DAH



Sources: IHME DAH Database 2013 and Global Burden of Disease Study 2010

FIGURE 11
DAH over five-year periods per all-cause DALY, by region, 1991–2010



Sources: IHME DAH Database 2013 and Global Burden of Disease Study 2010

Note: The bars represent cumulative DAH across each five-year period.

Caribbean. Over 2006–2010, North Africa and the Middle East received more than \$30 in DAH per DALY. This amounted to a 44% increase from the 2001–2005 period.

The other three regions highlighted have had consistently lower, yet rising, dah per daly. Europe and Central Asia received around \$20 in international assistance per daly over 2006–2010, a close to 90% increase over 2001–2005. In the East Asia and Pacific region, dah per daly over 2006–2010 amounted to approximately \$14, while South Asia received \$12. The regions' dah per daly increased by almost 72% and 64%, respectively, over the 2001–2005 period.